

Application No. 10/629,254
 Amendment "A" dated April 4, 2006
 Reply to Office Action mailed July 29, 2003

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

25. ~~(Currently Amended) At a compiling computer system~~ In a computer network comprised of different types of platforms for storing replicas of the same data, and wherein the limitations or features of a particular platform may require the data of a replica to be stored in a different physical arrangement at the data store layer of the particular platform, and wherein when synchronizing the replicas the data for each replica must be mapped from the different physical arrangement at each platform into a logical view table of a synchronization layer of the particular platform that is substantially similar to the logical view table at each of the other different types of platforms, a method for generating a mapping of the physical layout of items in a data store layer of a platform to a logical view in a synchronization layer of the platform, the method comprising:

~~an act of compiling at the computer system of a particular platform a accessing eere code that can be used to facilitate compilation of logical schema into a catalog that can be used to;~~ an act of accessing a logical schema, the logical schema including: define a logical view that is substantially the same for each platform, and that includes a logical grouping of data items by defining the data items in terms of,

a change unit that defines the granularity of an group of data items in the sense that if any part of the group of data items is modified, the entire group of data items will be synchronized when synchronizing other replicas; and

a consistency unit, defining the minimum group of data items that must be reported during synchronization if any item of the group is changed changes of one or more items of the defined granularity that must be received in the same synchronization in order for any of the one or more items to be updated in a replica; and

~~an act of utilizing the eere code to compile the logical schema into at least a catalog to,~~ the catalog mapping items from a physical layout to the a logical view that is;

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~~the logical view being~~ substantially similar to ~~the~~ a logical view at different platforms of
one or more other computer systems.

26. (Currently Amended) ~~The method as defined in of claims 25 or 42, further~~
~~comprising: an act of configuring the compiling computer system to send items to at least one of~~
~~the one or more other computer systems wherein the platform at each computer system wherein a~~
~~replica is stored includes in the synchronization layer of the computer system a logical schema~~
~~that is compiled into a catalog that can be used to define a logical view that is substantially the~~
~~same for each platform.~~

27. (Currently Amended) ~~The method as defined in of claim 256, further comprising:~~
~~an act of installing the catalog to a computer system for use with a data store configured in the~~
~~physical layout wherein the schema of one or more catalogs is in extensible mark-up language~~
~~(XML).~~

28. (Currently Amended) ~~The method as defined in of claims 25 or 42, further~~
~~comprising: an act of sending the catalog to a computer system for use with a replica that is~~
~~configured to synchronize data according to the logical view wherein the physical arrangement at~~
~~the data store layer of the platform for each computer system at which a replica is stored is~~
~~defined by one or more physical tables for storing the data of the replica.~~

29. (Currently Amended) ~~The method as defined in of claim 287, further comprising:~~
~~an act of dividing the computer system into a data store layer and a synchronization layer~~
~~wherein the physical arrangement defined by the physical tables of at least one of the computer~~
~~systems is different from the the physical arrangement defined by the physical tables of the other~~
~~computer systems.~~

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30. (Currently Amended) The method as defined in ~~of~~ claim 29, wherein ~~the act of~~ compiling further creates the data store layer of each platform of each computer system where a replica is stored includes a user interface that includes procedures or functions code, the procedures or functions code is being adapted to arrange the data for the replica in the physical tables of items in the data store layer and further comprising an act of locating the procedures or functions code at the data store layer.

31. (Currently Amended) The method as defined in ~~of~~ claims 259 or 42, ~~further comprising: an act of locating the catalog in the synchronization layer wherein~~
the data store layer of the platform for each computer system at which a replica is stored includes one or more folders in which items grouped in a common folder can be synchronized, thereby defining the scope of synchronization between synchronization layers of different platforms, and
wherein the items grouped in a common folder that can be synchronized are less than all of the items stored for a replica.

32. (Currently Amended) The method as defined in ~~of~~ claim 289, further comprising:
an act of storing a local change tracker in the one or more physical tables at the data store layer of each platform, the local change tracker maintaining local change enumerations for items stored in the data store layer of a platform;
an act of storing a synchronization change tracker in the logical view table at the synchronization layer of each platform, the synchronization change tracker maintaining versions and synchronization local change enumerations for the items stored in the synchronization layer of a platform; and
wherein by comparing the local change tracker with the synchronization local change tracker, the computer system of each platform can determine if an item stored in the data store layer of the computer system should be sent and thus mapped to the logical view in the synchronization layer of the computer system.

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33. (Original)The method of claim 32, wherein if the local change enumeration and the synchronization local change enumeration comprise different values, then the item stored in the data store layer of the computer system should be mapped to the logical view.

34. (Original)The method of claim 32, wherein if the local change enumeration and the synchronization local change enumeration comprise the same value, then the item stored in the data store layer of the computer system does not need to be mapped to the logical view.

35. (Currently Amended)The method of claim 32, wherein
a change in an item of data for a replica stored at a particular platform caused by a different version of the replica created by a computer system of another platform is identified by a the versions comprising replica IDs that corresponds to at the computer systems of the other platform in the topology, and
wherein a change in an item of data for a replica stored at a particular platform caused by a change created in the one or more physical tables of the data store of the particular platform is identified by a change enumerations corresponding to a chronological order that the change was made.

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

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40. (Cancelled)

41. (Cancelled)

42. (New) In a computer network comprised of different types of platforms for storing replicas of the same data, and wherein the limitations or features of a particular platform may require the data of a replica to be stored in a different physical arrangement at the data store layer of the particular platform, and wherein when synchronizing the replicas the data for each replica must be mapped from the different physical arrangement at each platform into a logical view table of a synchronization layer of the particular platform that is substantially similar to the logical view table at each of the other different types of platforms, a computer program product for implementing within the computer network a method for mapping of the physical layout of items in a data store layer of a platform to a logical view in a synchronization layer of the platform, the computer program product comprising a computer readable-medium having stored thereon computer-executable instructions for implementing the method, and wherein the method is comprised of:

an act of compiling at the computer system of the platform a logical schema into a catalog that can be used to define a logical view that is substantially the same for each platform, and that includes a logical grouping of data items by defining the data items in terms of,

a change unit that defines the granularity of a group of data items in the sense that if any part of the group of data items is modified, the entire group of data items will be synchronized when synchronizing other replicas; and

a consistency unit, defining the minimum group of data items that must be reported during synchronization if any item of the group is changed; and

an act of utilizing the catalog to map items from a physical layout to the logical view that is substantially similar to the logical view at different platforms of one or more other computer systems.